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SEQUENCE LISTING

<110> YAMAMOTO, Hiroshi
 TSUJIKAWA, Kazutake
 UCHINO, Yukiko

<120> ANTIBODIES SPECIFIC FOR INTRACELLULAR DOMAIN OF PROTEIN
 TYROSINE PHOSPHATASE

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<150> PCT/JP98/03120
 <151> 1998-07-10

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<170> PatentIn Ver. 2.0

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 Met Arg Arg Leu Asn Tyr Gln Thr Pro Gly Met Arg Asp His Pro Pro
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 Ile Pro Ile Thr Asp Leu Ala Asp Asn Ile Glu Arg Leu Lys Ala Asn
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Ser Ile Asp Met Gly Pro Gln Leu Lys Val Val Glu Lys Ala Arg Thr
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Ile Gly Gly Leu Ser Pro Phe Ser Glu Tyr Ala Phe Arg Val Leu Ala	
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 Ala Pro Asp Leu Leu Pro His Lys Pro Leu Pro Ala Ser Ala Tyr Ile
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 Leu Val Arg Trp Phe Tyr Ile Val Val Val Pro Ile Asp Arg Val Gly
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 1120 1125 1130

- 11 -

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 Ser Pro Tyr Ser Asp Glu Ile Val Val Gln Val Thr Pro Ala Gln Gln
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cag gag gag ccg gag atg ctg tgg gtg acg ggt ccc gtg ctg gca gtc 4153
 Gln Glu Glu Pro Glu Met Leu Trp Val Thr Gly Pro Val Leu Ala Val
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 Ile Leu Ile Ile Leu Ile Val Ile Ala Ile Leu Leu Phe Lys Arg Lys
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gac tcc ttg ctg gcc cac tcc tct gac cct gtg gag atg cgg agg ctc 4297
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 1295 1300 1305

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 Val Pro Gly Ser Asp Tyr Ile Asn Ala Asn Tyr Ile Asp Gly Tyr Arg
 1375 1380 1385

- 12 -

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 Lys Gln Asn Ala Tyr Ile Ala Thr Gln Gly Pro Leu Pro Glu Thr Met
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 Met Met Thr Arg Leu Glu Glu Lys Ser Arg Val Lys Cys Asp Gln Tyr
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 Gln Thr Glu Asp Gln Tyr Val Phe Ile His Glu Ala Leu Leu Glu Ala
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 Phe Ile Ser Ala Asn Leu Pro Cys Asn Lys Phe Lys Asn Arg Leu Val
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 Val Val Asp Met Phe Gln Thr Val Lys Thr Leu Arg Thr Gln Arg Pro
 1840 1845 1850

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 Ala Met Val Gln Thr Glu Asp Gln Tyr Gln Leu Cys Tyr Arg Ala Ala
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 1870 1875 1880

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 <213> Unknown

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 Sequence in Phosphatase Domain 1 of LAR and CD45

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Acid Sequence in Cytoplasmic Domain of Known PTPs.

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<222> (3)
<223> Xaa= Arg, Glu or Leu

<220>
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<222> (5)
<223> Xaa= Val, Ile or Cys

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1 5

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Acid Sequence in Cytoplasmic Domain of Known PTPs.

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<223> Xaa= Ala or Asp

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Acid Sequence in Cytoplasmic Domain of Known PTPs.

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Gly Ser Asp Tyr Ile Asn Ala Asn Tyr Ile Asp Gly Tyr Arg Lys Gln
35 40 45

Asn Ala Tyr Ile Ala Thr Gln Gly Pro Leu Pro Glu Thr Met Gly Asp
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Phe Trp Arg Met Val Trp Glu Gln Arg Thr Ala Thr Val Val Met Met
65 70 75 80

Thr Arg Leu Glu Glu Lys Ser Arg Val Lys Cys Asp Gln Tyr Trp Pro
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Ala Arg Gly Thr Glu Thr Cys Gly Leu Ile Gln Val Thr Leu Leu Asp
100 105 110

Thr Val Glu Leu Ala Thr Tyr Thr Val Arg Thr Phe Ala Leu His Lys
115 120 125

Ser Gly Ser Ser Glu Lys Arg Glu Leu Arg Gln Phe Gln Phe Met Ala
130 135 140

Trp Pro Asp His Gly Val Pro Glu Tyr Pro Thr Pro Ile Leu Ala Phe
145 150 155 160

Leu Arg Arg Val Lys Ala Cys Asn Pro Leu Asp Ala Gly Pro Met Val
165 170 175

Val His Cys Ser Ala Gly Val Gly Arg Thr Gly Cys Phe Ile Val Ile
180 185 190

Asp Ala Met Leu Glu Arg Met Lys His Glu Lys Thr Val Asp Ile Tyr
195 200 205

Gly His Val Thr Cys Met Arg Ser Gln Arg Asn Tyr Met Val Gln Thr
210 215 220

Glu Asp Gln Tyr Val Phe Ile His Glu Ala Leu Leu Glu Ala Ala Thr
225 230 235 240

Cys Gly His Thr Glu Val Pro Ala Arg Asn Leu Tyr Ala His Ile Gln
245 250 255

Lys Leu Gly Gln Val Pro Pro Gly Glu Ser Val Thr Ala Met Glu Leu
260 265 270

- 18 -

Glu Phe Lys Leu Leu Ala Ser Ser Lys Ala His Thr Ser Arg Phe Ile
275 280 285

Ser Ala Asn Leu Pro Cys Asn Lys Phe Lys Asn Arg Leu Val Asn Ile
290 295 300

Met Pro Tyr Glu Leu Thr Arg Val Cys Leu Gln Pro Ile Arg Gly Val
305 310 315 320

Glu Gly Ser Asp Tyr Ile Asn Ala Ser Phe Leu Asp Gly Tyr Arg Gln
325 330 335

Gln Lys Ala Tyr Ile Ala Thr Gln Gly Pro Leu Ala Glu Ser Thr Glu
340 345 350

Asp Phe Trp Arg Met Leu Trp Glu His Asn Ser Thr Ile Ile Val Met
355 360 365

Leu Thr Lys Leu Arg Glu Met Gly Arg Glu Lys Cys His Gln Tyr Trp
370 375 380

Pro Ala Glu Arg Ser Ala Arg Tyr Gln Tyr Phe Val Val Asp Pro Met
385 390 395 400

Ala Glu Tyr Asn Met Pro Gln Tyr Ile Leu Arg Glu Phe Lys Val Thr
405 410 415

Asp Ala Arg Asp Gly Gln Ser Arg Thr Ile Arg Gln Phe Gln Phe Thr
420 425 430

Asp Trp Pro Glu Gln Gly Val Pro Lys Thr Gly Glu Gly Phe Ile Asp
435 440 445

Phe Ile Gly Gln Val His Lys Thr Lys Glu Gln Phe Gly Gln Asp Gly
450 455 460

Pro Ile Thr Val His Cys Ser Ala Gly Val Gly Arg Thr Gly Val Phe
465 470 475 480

Ile Thr Leu Ser Ile Val Leu Glu Arg Met Arg Tyr Glu Gly Val Val
485 490 495

Asp Met Phe Gln Thr Val Lys Thr Leu Arg Thr Gln Arg Pro Ala Met
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- 19 -

Tyr Leu Gly Ser Phe Asp His Tyr Ala Thr
530 535

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35 40 45

Arg Lys Tyr Ile Ala Ala Gln Gly Pro Arg Asp Glu Thr Val Asp Asp
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Phe Trp Arg Met Ile Trp Glu Gln Lys Ala Thr Val Ile Val Met Val
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Thr Arg Cys Glu Glu Gly Asn Arg Asn Lys Cys Ala Glu Tyr Trp Pro
85 90 95

Ser Met Glu Glu Gly Thr Arg Ala Phe Gly Asp Val Val Val Lys Ile
100 105 110

Asn Gln His Lys Arg Cys Pro Asp Tyr Ile Ile Gln Lys Leu Asn Ile
115 120 125

Val Asn Lys Lys Glu Lys Ala Thr Gly Arg Glu Val Thr His Ile Gln
130 135 140

Phe Thr Ser Trp Pro Asp His Gly Val Pro Glu Asp Pro His Leu Leu
145 150 155 160

Leu Lys Leu Arg Arg Arg Val Asn Ala Phe Ser Asn Phe Phe Ser Gly
165 170 175

Pro Ile Val Val His Cys Ser Ala Gly Val Gly Arg Thr Gly Thr Tyr
180 185 190

Ile Gly Ile Asp Ala Met Leu Glu Gly Leu Glu Ala Glu Asn Lys Val
195 200 205

- 20 -

Asp Val Tyr Gly Tyr Val Val Lys Leu Arg Arg Gln Arg Cys Leu Met
210 215 220

Val Gln Val Glu Ala Gln Tyr Ile Leu Ile His Gln Ala Leu Val Glu
225 230 235 240

Tyr Asn Gln Phe Gly Glu Thr Glu Val Asn Leu Ser Glu Leu His Pro
245 250 255

Tyr Leu His Asn Met Lys Lys Arg Asp Pro Pro Ser Glu Pro Ser Pro
260 265 270

Leu Glu Ala Glu Phe Gln Arg Leu Pro Ser Tyr Arg Ser Trp Arg Thr
275 280 285

Gln His Ile Gly Asn Gln Glu Glu Asn Lys Ser Lys Asn Arg Asn Ser
290 295 300

Asn Val Ile Pro Tyr Asp Tyr Asn Arg Val Pro Leu Lys His Glu Leu
305 310 315 320

Glu Met Ser Lys Glu Ser Glu His Asp Ser Asp Glu Ser Ser Asp Asp
325 330 335

Asp Ser Asp Ser Glu Glu Pro Ser Lys Tyr Ile Asn Ala Ser Phe Ile
340 345 350

Met Ser Tyr Trp Lys Pro Glu Val Met Ile Ala Ala Gln Gly Pro Leu
355 360 365

Lys Glu Thr Ile Gly Asp Phe Trp Gln Met Ile Phe Gln Arg Lys Val
370 375 380

Lys Val Ile Val Met Leu Thr Glu Leu Lys His Gly Asp Gln Glu Ile
385 390 395 400

Cys Ala Gln Tyr Trp Gly Glu Gly Lys Gln Thr Tyr Gly Asp Ile Glu
405 410 415

Val Asp Leu Lys Asp Thr Asp Lys Ser Ser Thr Tyr Thr Leu Arg Val
420 425 430

Phe Glu Leu Arg His Ser Lys Arg Lys Asp Ser Arg Thr Val Tyr Gln
435 440 445

Tyr Gln Tyr Thr Asn Trp Ser Val Glu Gln Leu Pro Ala Glu Pro Lys
450 455 460

- 21 -

Glu Leu Ile Ser Met Ile Gln Val Val Lys Gln Lys Leu Pro Gln Lys
465 470 475 480

Asn Ser Ser Glu Gly Asn Lys His His Lys Ser Thr Pro Leu Leu Ile
485 490 495

His Cys Arg Asp Gly Ser Gln Gln Thr Gly Ile Phe Cys Ala Leu Leu
500 505 510

Asn Leu Leu Glu Ser Ala Glu Thr Glu Glu Val Val Asp Ile Phe Gln
515 520 525

Val Val Lys Ala Leu Arg Lys Ala Arg Pro Gly Met Val Ser Thr Phe
530 535 540

Glu Gln Tyr Gln Phe Leu Tyr Asp Val Ile Ala Ser Thr Tyr Pro Ala
545 550 555 560

Gln Asn Gly Gln Val Lys Lys Asn Asn His Gln Glu Asp Lys Ile Glu
565 570 575

Phe Asp Asn Glu Val Asp Lys Val Lys Gln Asp Ala Asn Cys Val Asn
580 585 590

Pro Leu Gly Ala Pro Glu Lys Leu Pro Glu Ala Lys Glu Gln Ala Glu
595 600 605

Gly Ser Glu Pro Thr Ser Gly Thr Glu Gly Pro Glu His Ser Val Asn
610 615 620

Gly Pro Ala Ser Pro Ala Leu Asn Gln Gly Ser
625 630 635

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August 27, 2003

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MARSHALL GERSTEIN & BORUN

NO.163

P.2/55

PATENT
19036/37023

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Yamamoto, *et al.*

Serial No: 09/743,492

Filed: April 30, 2001

Title: Antibodies Specific for
Intracellular Domain of Protein
Tyrosine Phosphatase

Group Art Unit: 1642

Examiner: M. M. Haddad

VIA HAND DELIVERY

STATEMENT UNDER 37 C.F.R. §§1.825(a) and (b)

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450


Sir:

I hereby state that the content of the paper and computer readable copies of the substitute Sequence Listing, submitted herewith in accordance with 37 C.F.R. §§1.821 and 1.825, are the same and include no new matter. Sequences 1-8 find support in the sequence listing as originally filed; sequences 9 and 10 find support in Figure 9.

Respectfully submitted,

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6300 Sears Tower
233 South Wacker Drive
Chicago, Illinois 60606-6357
(312) 474-6300

By:


Kurt T. Buechle
Registration No. 54,011
Attorney for Applicants

August 5, 2003

E